



**Integrating Highway Development With
Communities and the Environment**

Maryland State Highway Administration

Presentation for:

Regional Workshop on Context Sensitive Design

“Safety, Aesthetics and Community Partnerships”

May 1, 2002 - Seattle, Washington

Parker F. Williams, Administrator





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Presentation for:

CSD-100 International Symposium

“Main Street America Meets Main Street Europe”

May 2-3, 2002 - Seattle, Washington

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What is *Thinking Beyond the Pavement?*

- An approach to guide the context sensitive development of projects so that:
 - projects are done right the first time!
 - projects address transportation need
 - projects balance stakeholder objectives
 - projects are safe
- An approach that will enhance
good engineering



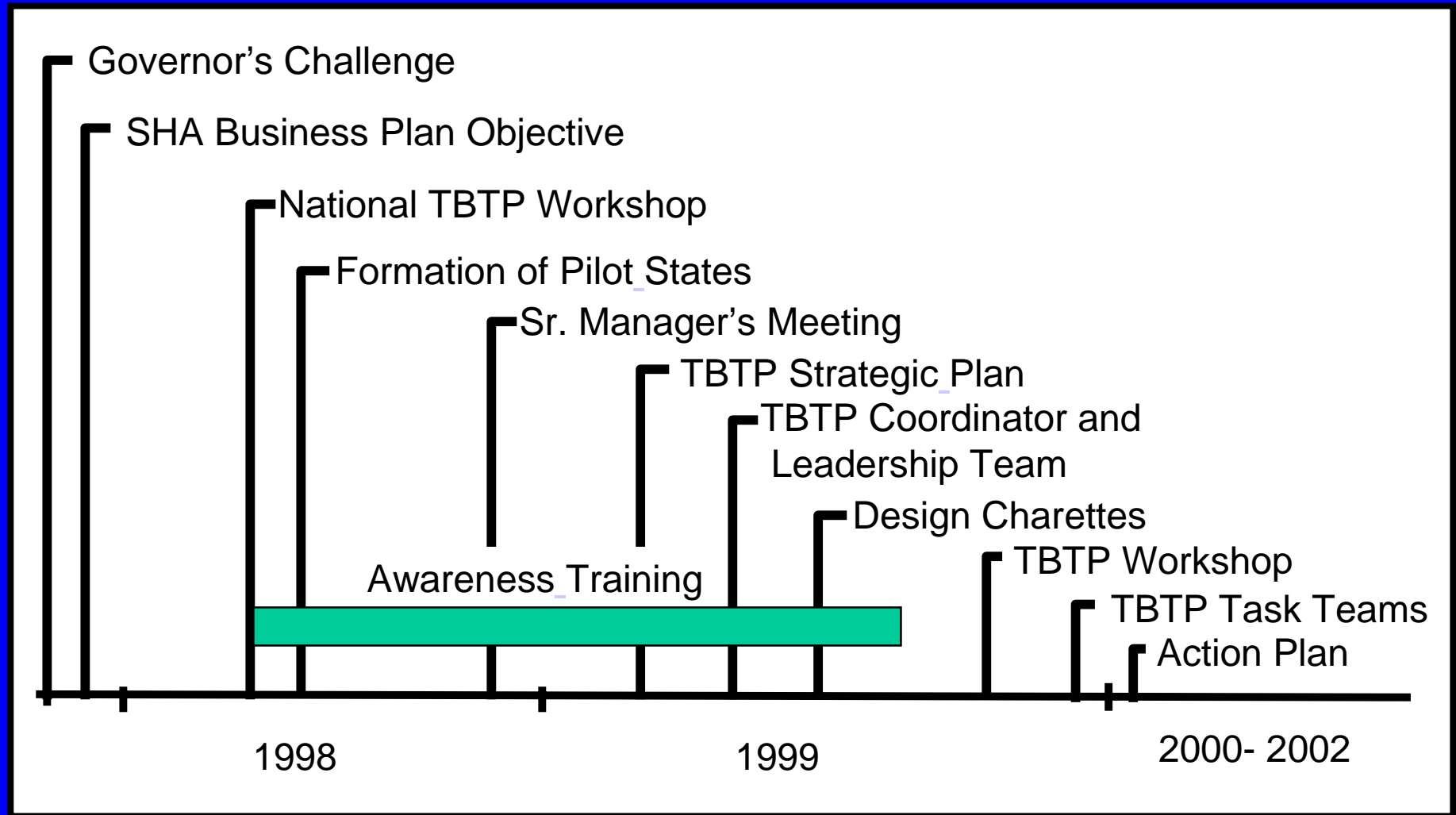
Governor's Challenge



“We must work together and move aggressively to use transportation resources and projects to stabilize and improve the quality of life in our established areas. That is what Smart Growth and Smart Transportation are all about.”

Parris Glendening,
Governor of Maryland

Where Have We Been?



National TBTP Workshop

- Held in May 1998
- 36 Co-sponsors
- 325 attendees
- 39 states and DC
- Developed:
 - Project Qualities
 - Characteristics of the Process



Qualities of the Project

Project is a Safe Facility

**Project is in
Harmony with
the Community**

**Project exceeds
Expectations of
Designers and
Stakeholders**

**Project Involves
Efficient & Effective
Use of Resources**

**Project is Built with
Minimal Disruption to
the Community**

**Project is Seen as
Having Added Lasting
Value to the Community**

**Project Satisfies
Purpose and Need**

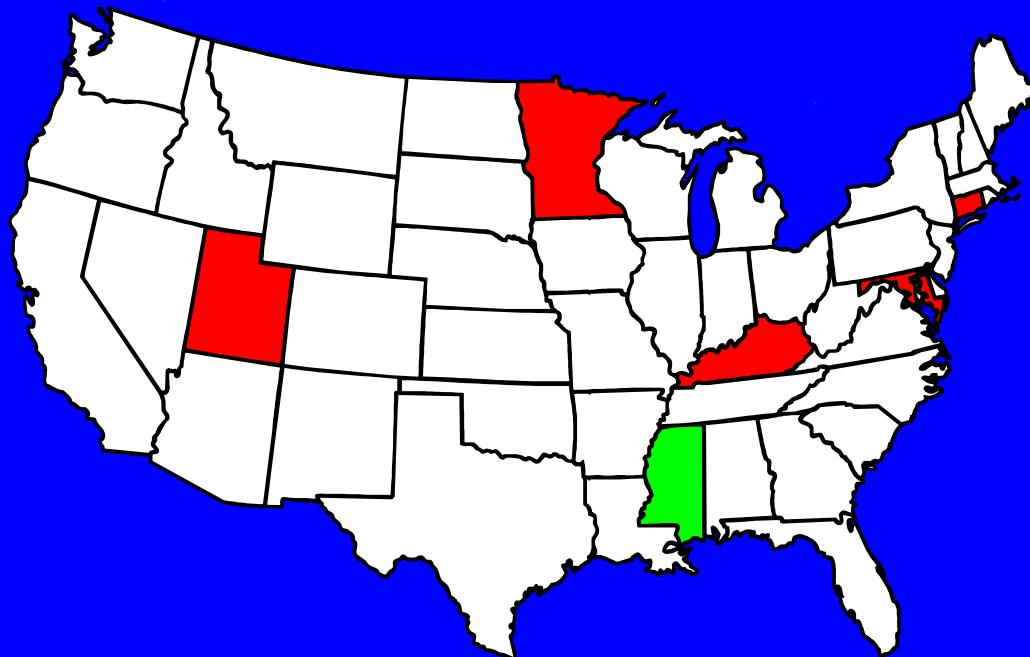


Characteristics of the Process



TBTP Pilot States

- Formed after National Workshop to Lead Context Sensitive Design Efforts
- Five Pilot States - Maryland Lead State
- AASHTO Task Force on CSD



Design Charettes

- How does SHA “measure up”?
- Four project reviews held in May and June of 1999
- Identified strategies to improve SHA’s project development process



TBTP Implementation Workshop

- Two-day workshop held in November 1999
- 300+ participants
- Participants identified strategies to implement Context Sensitive Design at MSHA
- Recommendations for change - project development process, policies, procedures, practices

Key Themes for MSHA Project Development

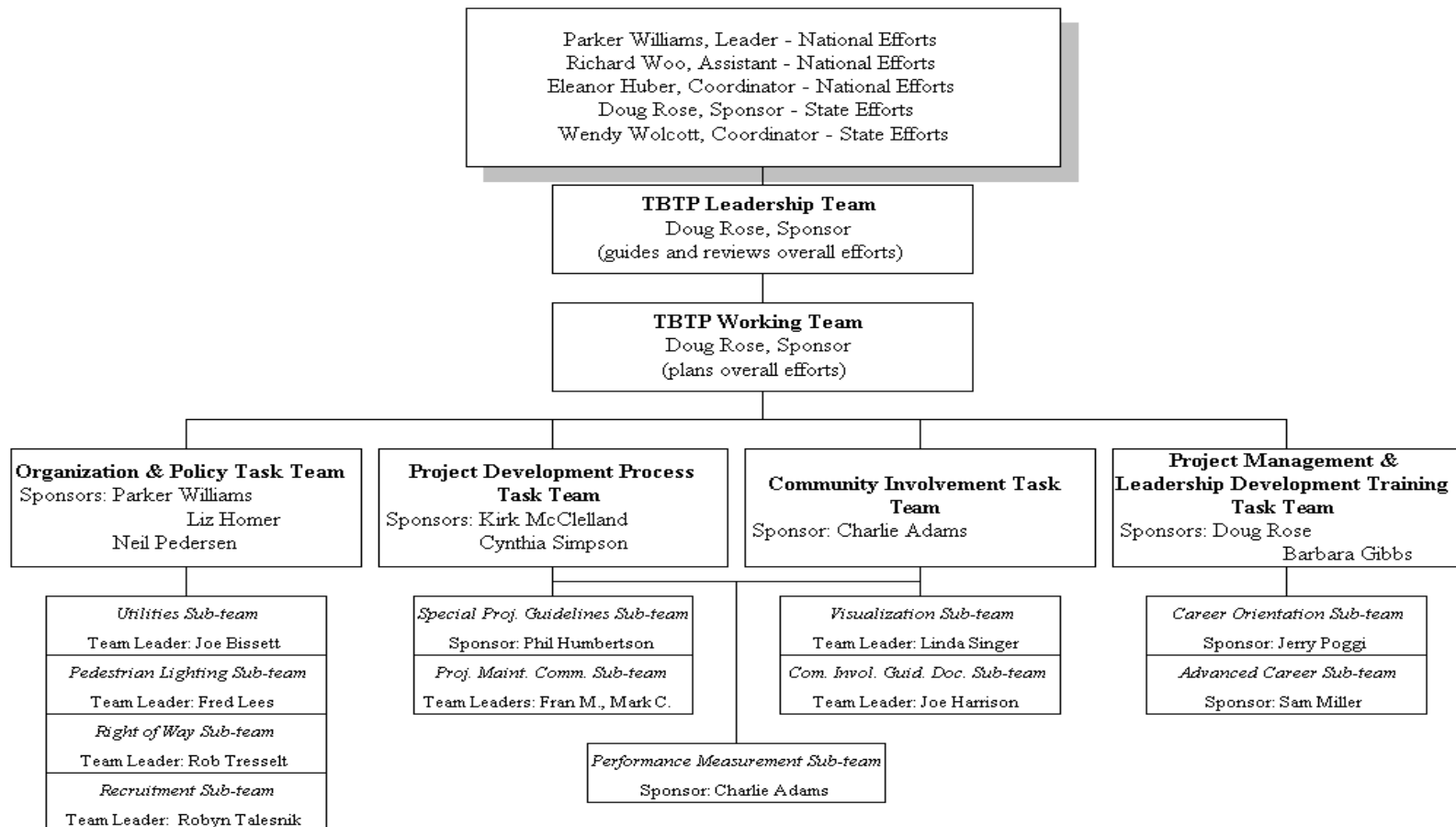
- Identify stakeholders early
- Develop a project vision
- Assemble an inter-disciplinary team early
- Project management quality is critical to project success
- Provide good communication throughout project development
- Ensure continuity in project management, team membership, use of consultants, and community involvement
- Determine schedule and budget after consensus on vision
- Document vision, decisions, and commitments
- Evaluate project with full team and stakeholders

Creation of Implementation Teams

- Organization and Policy Team
- Project Management and Leadership Development Training Team
- Community Involvement Team
- Project Development Process, Documentation, and Performance Measurement Team

Implementation Team Structure

Organizational Chart for MSHA's *Thinking Beyond the Pavement* Initiative



TBTP Action Plan



**Integrating Highway Development With
Communities and the Environment**

One Year Action Plan Report

**on Activities Resulting from the
Maryland State Highway Administration
November 1999 Implementation Workshop**



Maryland State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202



Organization and Policy Team

Team Goal: To integrate TBTP concepts for organizational and policy issues

Strategies:

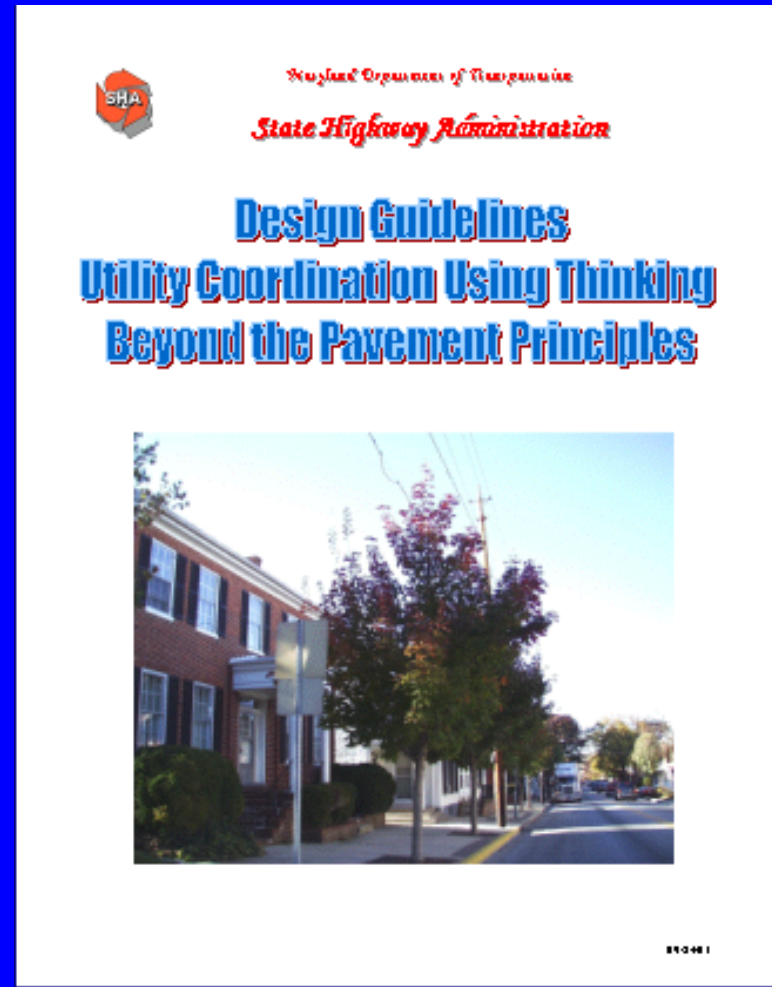
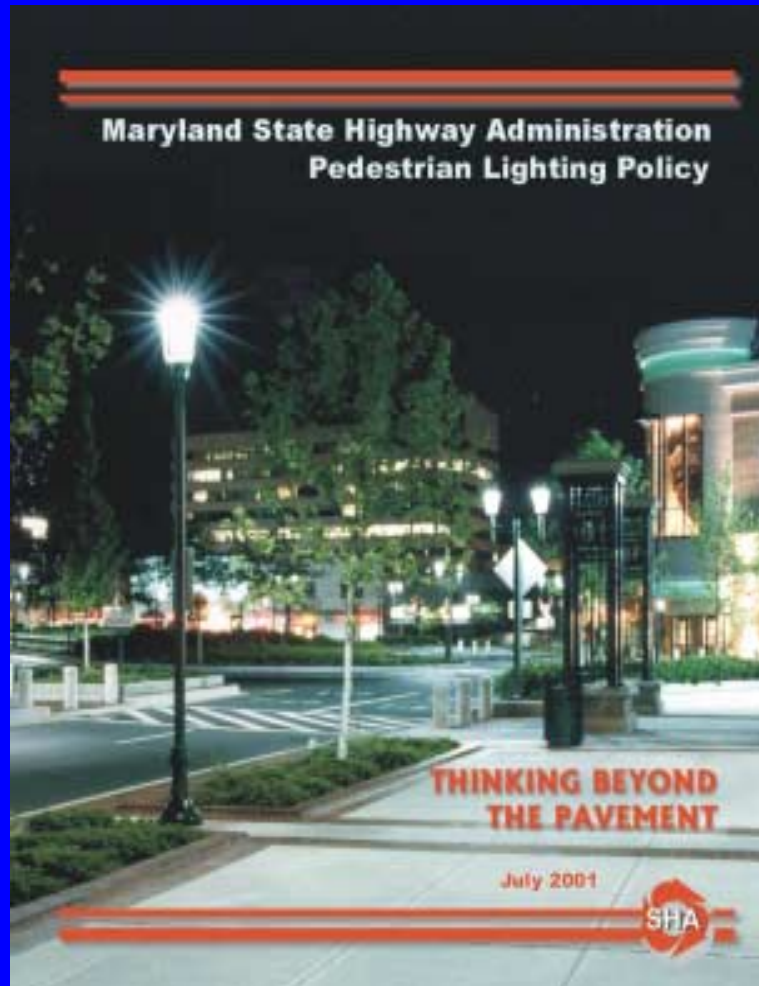
- Develop policies for pedestrian lighting, right-of-way, utilities, and the funding of certain project items, to reflect the TBTP approach
- Modify the consultant selection and graduate engineer interview processes to include TBTP criteria
- Include the TBTP approach in MSHA Business Plans

Organization and Policy Team

- Develop outcome measures for public and private investments associated with the Neighborhood Conservation Program.
- Create internal and external awards, recognizing the TBTP approach to project development

All of the team's strategies have been developed and most have been implemented. Examples of the team's work include...

Organization and Policy Team



Project Development Process Team

Team Goal: To develop a streamlined process for delivering transportation projects that provides continuity between all phases

Strategies:

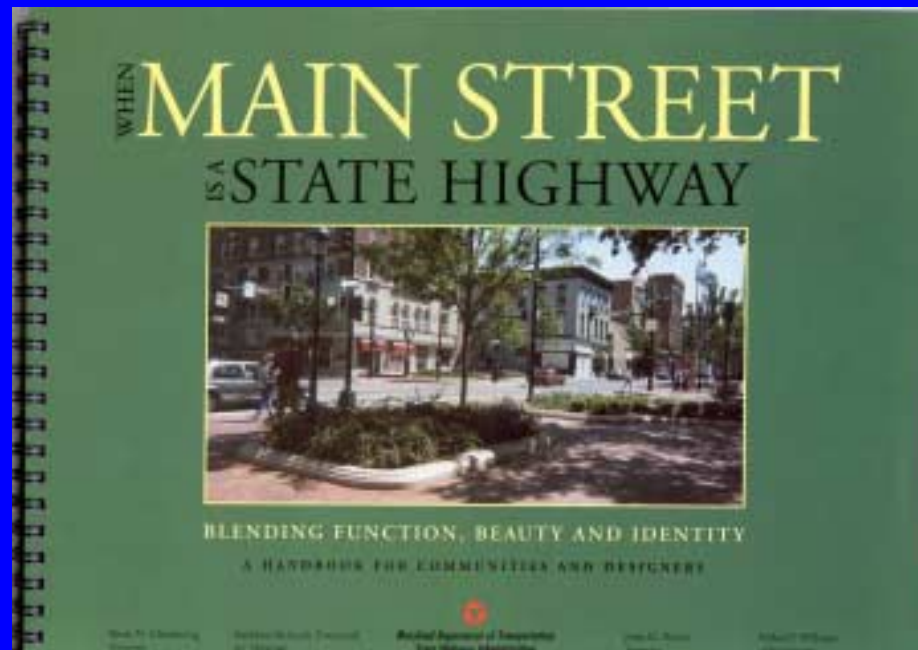
- Develop guidelines for the preparation of project development plans
- Develop joint planning/design contracts for better project continuity and less re-design

Project Development Process Team

- Identify methods to record and disseminate project information so that everyone involved with the project during all phases is aware of key commitments and decisions
- Improve the design initiation, preliminary investigation, final review and constructability review processes
- Improve communication between planning, design, construction and maintenance

Project Development Process, Documentation, and Performance Measurement Team

An example of efforts to improve our project development process is our new handbook for Neighborhood Conservation projects:



www.marylandroads.com/ohd/mainstreet.htm

Community Involvement Team

Team Goal: To improve SHA's community involvement processes, techniques, and tools that support the successful development of highway projects

Strategies:

- Develop SHA community involvement guidance documents for SHA staff, consultants, and community representatives
- Develop community involvement skill training for SHA staff and consultants

Community Involvement Team

- Develop and implement recommendations for the use of computer visualization techniques as a design and communication tool
- Develop survey forms as a means to chart customer satisfaction and make improvements

Project Management Training Team

Team Goal: To develop project managers with the knowledge, skills and techniques to produce successful projects.

Strategies:

- Develop an orientation course for Graduate Engineering Training Program on our project development process
- Develop a Fundamentals of Project Management course and advanced level, topic-specific project management courses

Project Management Training Team

The team developed and implemented a 3-day Project Management Course for MSHA and consultant project managers.



Maryland SHA Project Management Class



"Excellence in project management education & research"

Definition

"Project management is the application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project."

A Guide to the Project Management Body of Knowledge

Maryland CSD Implementation Challenges

- Buy-in and support requires continuous effort
- CSD is intensive and time consuming - more projects and less staff
- Competing goals and priorities
- CSD approach is resource intensive at the front-end
- Experience level of project managers

National TBTP Efforts



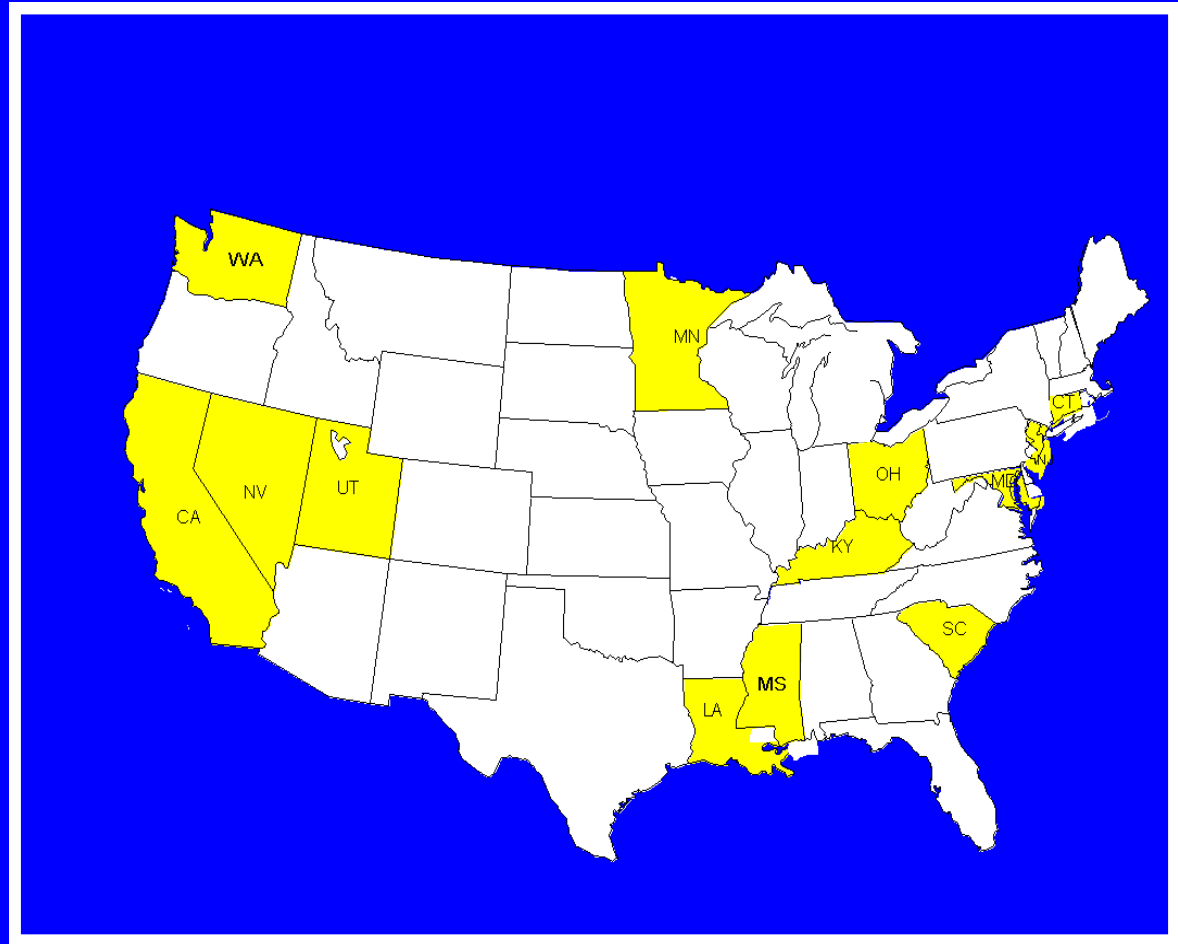
AASHTO Task Force on CSD Parker F. Williams, Chairman

- December, 2000 Policy Resolution to continue TBTP/CSD efforts nationally
- Task Force is formed to further study and develop recommendation on CSD issues

AASHTO Task Force on CSD

Task Force Membership

- 13 State DOTs
- Local DOT
- FHWA
- AASHTO/TRB
- Consultants



AASHTO Task Force on CSD

- Task Force members formed 3 Groups

Oversight/Standards

“AASHTO Standards
and Policies

Chair: Susan Martinovich (NV)

Training/Awareness

“Promote and Train”

Chair: Bill Gulick (KY)

Performance Measurement

“Best Practices, State of the Art”

Chair: Dave Ekern (MN/AASHTO)

AASHTO Task Force on CSD

- 3 Chairs convened their members and identified a range of goals and objectives
- Top Priority: “The 4 Chapters”: “Get them in place and move on”:
 - 1 Project Development Process
 - 2 CSD Solutions through Community Involvement
 - 3 Highway Geometrics
 - 4 Legal Liability

National CSD Implementation Challenges

- State DOT's embrace CSD differently and have different needs
- State DOT's view flexibility differently
- States fear that CSD will cost more
- AASHTO's "4 Chapters"
- CSD performance measurement

TBTP in Action at MSHA

MD 45 - Towson Roundabout



Before

After



TBTP in Action at MSHA

MD 140 - Reisterstown



Before

After



TBTP in Action at MSHA

Reisterstown Historic District Economic Development on Main Street



TBTP in Action at MSHA

Burkittsville

Thinking *Beneath* the Pavement...



Archaeologists' discoveries...



are incorporated into the final design

TBTP in Action at MSHA

Sharpsburg



TBTP in Action at MSHA

MD 355 - Gaithersburg



TBTP in Action at MSHA

Canal Parkway



Rendering

Result



TBTP in Action at MSHA

Canal Parkway



Adjacent Rail Yard

Roadway Bridge



TBTP in Action at MSHA

Westminster Historic District

